Date: Mon, 11 Oct 93 12:40:43 PDT

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V93 #1208

To: Info-Hams

Info-Hams Digest Mon, 11 Oct 93 Volume 93 : Issue 1208

Today's Topics:

AM on HF Bands Converting an HT IMOM MOTOROLA

Motorola ad in QST Motorola ad in QST? (2 msgs) Multi-Band Antennas cont'd

> New HF Rig Newsline #842

PLEASE REMOVE FROM MAILING LIST

Tubes

Turning in RFI generating PC's to FCC

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 11 Oct 93 16:40:33 GMT

From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu

Subject: AM on HF Bands To: info-hams@ucsd.edu

In article <pineappCEpMu8.951@netcom.com> pineapp@netcom.com (Daniel Curry)
writes:

> I would like to know what is the interest of AM on HF bands? I have >nothing against it, but there seems to be more and more AM operation >lately. I do have a rig that transmits AM (FT-102) and have tried it.

Most AMers are using restored antiques or homebrew transmitters. Almost all of them are using plate (or collector) modulation rather than unbalancing the balanced modulator and linearly amplifying the result as in the FT-102. Compared to SSB, or the bandlimited AM from a SSB rig, the audio fidelity is superb, often reaching broadcast standard. It's hard to appreciate just how good the audio is on today's tightly filtered receivers, but with one of the fine old receivers, the quality shines through. Nostalga, and the fine audio quality, are what draws most of the current crop of AMers.

Gary

- -

Gary Coffman KE4ZV | "If 10% is good enough | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
534 Shannon Way | enough for Uncle Sam." | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

Date: 11 Oct 1993 16:15:59 GMT

From: nothing.ucsd.edu!brian@network.ucsd.edu

Subject: Converting an HT To: info-hams@ucsd.edu

When I convert commercial equipment to ham use - which must be well over a hundred radios by now - I usually order 'Commercial Standard' grade crystals. These have a calibration tolerance of around .005%, and a similar temperature tolerance over the range 0 to 50 C. This is perfectly adequate to ensure that the radio's trimmer will be able to tweak the crystal onto channel and that it will stay there in the temperature extremes that one normally encounters here in San Diego. Such a crystal costs between \$12 and \$15.

For the crystals used in our repeaters, I prefer to send the channel element to the crystal manufacturer and have him install the new crystal into the element and recompensate it to match the characteristics of that particular crystal. I usually order a tighter temperature tolerance crystal too - .0025% or .001%. The calibration tolerance doesn't have to be tighter, but the temperature tolerance should be. This is because the temperature inside our mountaintop vaults may reach below freezing during winter storms, or rise well above 130 F on hot summer days.

In standard narrowband (+/- 5kHz dev, 15 kHz channel spacing) ham operation, it's essential to keep the transmitter and receiver within about 500 Hz of the operating frequency to avoid distortion, ignition interference, and loss of effective sensitivity. I prefer my equipment

to stay within 100 Hz if possible.

Even the cheap ham-grade FM transceivers will suffer if they are off frequency by more than 800 Hz or so; that means that I have had to reset the master oscillators in my Kenwood base station radio (a 741) about once a year since I bought it. Eventually the crystals in this radio should stop aging; most of my other radios have settled down sooner than this one, so maybe I'll have to buy new crystals for it from a more reliable manufacturer than the one Kenwood bought from.

I assert that freq-and-dev clinics still need to be held periodically even in these days of synthesized radios - because the synthesizer reference and heterodyne crystals still drift. There's just fewer to adjust, that's all.

- Brian

Date: 11 Oct 1993 16:50:35 +0100

From: dog.ee.lbl.gov!agate!howland.reston.ans.net!xlink.net!scsing.switch.ch!univ-

lyon1.fr!ghost.dsi.unimi.it!ghost.dsi.unimi.it!not-for-mail@network.ucsd.edu

Subject: IMOM

To: info-hams@ucsd.edu

The Milano division of the A.R.I. (Italian Radioamateur Association)

will be on the air on:

october 14th to 19th 1993

with the call: ---->> I M 0 M <<----

from: MADDALENA IS. IOTA EU041 IIA SS01

CAPRERA IS. IOTA EU041 IIA SS05

Both islands are in Sardinia country for DXCC (ISO).

We will use the following frequencies:

HF+WARC SSB: 28460-24945-21260-18145-14260-7060-3790 (+-5khz)

CW: 28020-24895-21020-18080-14020-10105-7020-3520 (+-5khz)

VHF : 144.260

The team operators will be:

I2EAY, IK2QIN, IK2SGC, IK2SFZ, I2FGT, IK2OAH, IK2ULM

Stations: 2 TS850 3EL.10-15-20 DIPOLES WARC, 40 and 80

IC275 14EL. HY-GAIN for VHF

QSL VIA BUREAU TO: IK2QIN

QSL DIRECT TO: I.M.C.O. P.O.BOX 99 20101 MILANO

Best 73's and see you soon on the air.

A.R.I. MILANO DX TEAM.

Date: Mon, 11 Oct 1993 14:24:15 GMT

From: ftpbox!mothost!lmpsbbs!news@uunet.uu.net

Subject: MOTOROLA
To: info-hams@ucsd.edu

In article 7570@ke4zv.atl.ga.us, gary@ke4zv.atl.ga.us (Gary Coffman) writes:
}In article <johng-081093164343@sce16.comm.mot.com> johng@ecs.comm.mot.com (John Gilbert) writes:

}>In article <9310071900.AA26243@ucsd.edu>, rrossi@vnet.IBM.COM (Ronald D.

}>Rossi) wrote:

Most Deleted.

```
. Attempting
```

}to intimidate their customers isn't buying Motorola any good
}will.

3

```
}Gary
}--
}Gary Coffman KE4ZV
                           |"If 10% is good enough | gatech!wa4mei!ke4zv!gary
}Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
                 enough for Uncle Sam." | emory!kd4nc!ke4zv!gary
}534 Shannon Way
                           | -Ray Stevens
}Lawrenceville, GA 30244
They aren't trying to intimidate their customers, they are trying to intimidate
who would make a living from illegally modifying the radios software.
-WB4YUC
______
Date: Mon, 11 Oct 1993 14:17:36 GMT
From: ftpbox!mothost!lmpsbbs!news@uunet.uu.net
Subject: Motorola ad in QST
To: info-hams@ucsd.edu
In article w165w@hades.cdp.org, system@hades.cdp.org (Tony Pelliccio) writes:
}burke_br@adcae1.comm.mot.com (Bruce Burke Sp App) writes:
}> }Yet another case of innovation through litigation, folks.
}> }
}> }MD
}> }--
}> }-- Michael P. Deignan
}> }-- Population Studies & Training Center
}> }-- Brown University, Box 1916, Providence, RI 02912
}> }-- (401) 863-2668
}>
}>
}> Every manual contains a page indicating the software is copyrighted,
}> patented, or whatever. So, the buyer is warned. BTW - it is also imbedded in
}> the code.
}You're confusing copyright law buddy.... I think Mike has more than
}enough experience in the matter. As a matter of fact, so do I. I work
}for a software company! :)
}Tony
              o Tony Pelliccio, KD1NR, Control Op 441.750+, ARRL VE
}
             / system @ hades.cdp.org
                                                        Soon W5YI VE
```

Oh, I do understand, bottom line is the company owns the software and you, the customer, is being allowed to use it. Period.

You go buy a book or sheet music and what you have is a copy. You don't own the story line and you don't own the melody.

WB4YUC

Date: 11 Oct 1993 09:01:17 CDT

From: mdisea!mothost!schbbs!maccvm.corp.mot.com!CSLE87@uunet.uu.net

Subject: Motorola ad in QST?

To: info-hams@ucsd.edu

----- Original Article -----

Path: schbbs!mothost!binford!att!linac!uwm.edu!cs.utexas.edu!uunet!paperboy.ids.

From: system@hades.cdp.org (Tony Pelliccio)

Newsgroups: rec.radio.amateur.misc Subject: Re: Motorola ad in QST?

Message-ID: <931008.222439.6e3.rusnews.w165w@hades.cdp.org>

Date: Fri, 8 Oct 1993 22:24:39 EST

References: <19930ct4.012038.10380@cs.brown.edu> <19930ct6.115753.29654@lmpsbbs.

Organization: It's Hotter than Hell down here. CDP.ORG Founding Fathers

X-Newsreader: rusnews v1.05

Lines: 57

burke_br@adcae1.comm.mot.com (Bruce Burke Sp App) writes:

- > In article 10380@cs.brown.edu, md@pstc3.pstc.brown.edu (System Operator) writ
 > es:
- > {In article <ab5 9310020805@yyz.mbsun.mlb.org>, mbsun.mlb.org!yyz!115-119!Kar
- > 1.Beckman (Karl Beckman) writes:
- > }
- > }|> As just one of 100,000+ employees, I'm guessing that the issue is one
- > }|> of SOFTWARE PIRACY, that is the modification of Motorola's copyrighted
- > }|> computer code used in most new radios. Specifically, to add features
- > }|> without paying for them and to extend the coverage beyond the design

```
> }|> limits of the unit. I think Scott was right on both his comments.
> }
> }Err, I must be missing something...
> }If I buy a computer, and decide to modify the firmware to
> }give my system added capability, that is hardly "Software
> }Piracy".
> }
> }I fail to see how, all things being equal, the modification
> }of firmware within a Motorola radio is considered "software
> }piracy".
> }
> }If you build additional features into the radio, and attempt
> }to circumvent them through software control, and someone
> }discovers this by reverse-engineering and publishes the
> }"fixes", I again fail to see how this is considered
> }"software piracy".
> }
> }Perhaps you'd like to explain in a little more detail
> }the reasoning?
> The firmware is all copyrighted, tampering with it is a crime!
> Bruce, WB4YUC
```

No it's not! You're not doing it for any monetary gain. And you DO own the unit. Tamper away! As long as you don't change the code around and then try to sell it off as your own, it doesn't violate copyright laws.

I'm glad you're not in charge of enforcing the law... we'd all be in trouble then. (Forgive us Hamtronics for we have modified your REP-200 firmware to add features such as paging, cw AND voice ID, etc.)

Tony

Date: Mon, 11 Oct 1993 14:01:46 GMT

```
From: ftpbox!mothost!lmpsbbs!news@uunet.uu.net
Subject: Motorola ad in OST?
To: info-hams@ucsd.edu
In article 10246@TorreyPinesCA.ncr.com, kevin@TorreyPinesCA.ncr.com (Kevin
Sanders) writes:
}In article <vr6z05g@dixie.com> jgd@dixie.com (John De Armond) writes:
}>Bruce seems to be a real cheerleader for Motorola. After you read the
}>following, you will understand why.
Actually, what I am is someone who thouroughly understands their point.
 Motorola has instituted one of the
}>most henious personal privacy invasion programs I've ever seen.
Which one is this??
Anyone
}>who would continue to work for the company in the face of this must
}>be incapable of independent thought. When you read this, keep a copy of
}>Orwell's "1984" at hand. The parallels are frightening.
}>
}>Watch out for the non-sequitors.
\lambda^{\lambda}
Get a life John and stick to the issues. . .
-WB4YUC
}[ Long long long long irrelevant post deleted ]
}John, I've seen your posts here on the net for a long time but this one
}is really one for the record books. The whole idea of posting it is a
}non-sequitor! What are you trying to make us believe, that anyone currently
{working for Motorola is mindless therefore their opinions are to be ignored?
}As much as I dislike Motorola's policy as presented in your post, there are
fno doubt many people at Motorola who also dislike that policy. Just because
}you dislike a policy at your company does not compell you to leave the
}company; if that were true nobody would keep their job longer than a year.
}If you're such a prima donna that you can whine about a policy and get it
}changed by threatening to leave if it isn't, you are in the minority. Most
fof us don't have that luxury, especially those of us working for large
```

```
}companies.
}The real world is very different from the one in which you seem to be living,
₹John.
}
}--
                     Kevin Sanders, KN6FQ
             [][]
}[] [] [][]
                                                    NCR Torrey Pines
}[][]
       kevin.sanders@torreypinesca.ncr.com (619) 597-3602
}[][]
       [][]
             [][]
                     kevin%beacons@cvber.net
}[] []
       []
}[] [] [] [][]
                   Dump MS-DOS. Prevent Programmer Burnout with Linux.
```

Date: 11 Oct 93 16:30:09 GMT

From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu

Subject: Multi-Band Antennas cont'd

To: info-hams@ucsd.edu

In article <931010185827_3@ccm.hf.intel.com> Cecil_A_Moore@ccm.hf.INTel.COM (Cecil
A Moore) writes:

>>Your friends the Smith Chart and the coax loss tables can give you >>accurate results with any random length of feedline. >>Gary Coffman KE4ZV

>

>Gary, assume 100 ft of RG-58 transmission line with a measured SWR of >1.6 at the 100 watt transmitter end on 17 meters. I suggest that the >SWR at the antenna feed-point could be anywhere between 2/1 and 100/1 >with transmission line LOSSES anywhere between 37 watts (2db) and 75 >watts (6db) and no one can tell the difference at the transmitter >end. I don't know any way to tell the difference without measuring >the SWR at the antenna feed-point, measuring the amount of radiated >RF power, or calculating the feed-point SWR based on a program like >ELNEC. I think 99% of hams would be surprised at the results. Simply >changing from coax to ladder-line on my G5RV doubled my radiated power >while making my transmitter-end SWR a lot higher.

Ok, 100 feet of RG58A at 17 meters has a loss of 2.2 db. So if we measure 100 watts at the transmitter end, we know that the antenna is getting 60.25 watts. Now a 1.6:1 SWR at the transmitter means that for 100 watts out we are getting a reflected power of 5.325 watts back at the transmitter. That power came from the antenna mismatch reflection, so if we apply the cable loss again we get 9.03 watts at the antenna. So now we have 60.25 watts forward at the antenna, and 9.03 watts reflected at the antenna for a SWR of 2.263:1. There's an additional loss due to the SWR on the line of 0.097 db, but that's only 2% and thus below measuremental error.

Now we represent that on the Smith chart by a spiral that starts at the 1.6:1 constant SWR circle and spirals out to the 2.263:1 circle as we move 100 feet from the generator. We can now read all the handy information about impedances from the chart. No big mystery.

Gary

- -

Gary Coffman KE4ZV | "If 10% is good enough | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
534 Shannon Way | enough for Uncle Sam." | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

Date: 11 Oct 93 14:02:57 GMT

From: auratek!epacyna@uunet.uu.net

Subject: New HF Rig To: info-hams@ucsd.edu

In article <CEnnsx.187@mailer.cc.fsu.edu>, dodsonm@freenet.scri.fsu.edu (Michael
P. Dodson) writes:

>

> Gateway 2000 and Dell do not have dealers and they manage to push some > high tech gear off the loading dock.

>

Lets get up to date.

Dell is now marketing through retail stores (e.g. COMP USA), as well as Apple.

Gateway offers a lot of value (price, performance, quality and support), still sells direct but spends a ton of money in advertising.

Tentec does not fit into either of these marketing models.

Ed W1AAZ

Date: 11 Oct 1993 16:40:07 GMT

From: koriel!newscast.West.Sun.COM!abyss.West.Sun.COM!sunspot!myers@ames.arpa

Subject: Newsline #842 To: info-hams@ucsd.edu

In article Mp2@news.Hawaii.Edu, jherman@uhunix3.uhcc.Hawaii.Edu (Jeff Herman)
writes:

>If a band of child molesters or a group that practices beastiality (sex

>with animals) wanted to place an ad in QST I would hope the ARRL would >firmly say `NO!'. Now, from what I see here on campus, the gay lifestyle means >two or more men getting together and performing anal and or oral sex >on each other in the men's restrooms; I won't even begin to describe the >stains they leave on the walls of the toilet stalls. Whether one is a molester, >`loves' animals or is gay it still means subscribing to a deviant and nauseating >behavior. Many states still have anti-sodomy laws on the books; why should >QST or any other magazine be forced to advertise a special interest group >who's actions clearly violate the law's of a state in which the magazine is >being sold?

Ahem. If your only exposure to the "gay lifestyle" happens to be in the men's restrooms at your school, then I'd suggest you need to withold blanket judgement until you have a little more perspective.

To begin with, equating homosexual conduct with child molestation shows a limited mindset. Child molestation victimizes a child; consensual sex between adults victimizes no one.

There are certainly examples of militant and public homosexual behavior that are offensive. At the same time, there are many examples of militant and public heterosexual behavior that are offensive. In each case, different people may be offended for different reasons, but it remains that extremes among all demographic groups exist.

Would it make any difference to you, Jeff, if the stains on the walls of the toilet stalls were there because of heterosexual conduct? Would you be less critical? Heterosexual couples often engage in oral and anal sex, contrary to the laws of many states. I'd even wager a significant number of ARRL members, even the coded ones, enjoy sexual practices which violate anti-sodomy laws. Does this mean the ARRL should be outlawed, or that the ARRL needs to extract some kind of pledge from members that they will not engage in any kind of "deviant" sexual behavior?

Keep in mind, I am an openly heterosexual man who simply believes people should be left alone when it comes to consensual sexual relations.

* Dana H. Myers KK6JQ, DoD 466 | Views expressed here are

* This Extra supports the abolition of the 13 and 20 WPM tests *

Date: 11 Oct 93 18:16:27 GMT

^{* (310) 348-6043} | mine and do not necessarily

^{*} Dana.Myers@West.Sun.Com | reflect those of my employer

From: news-mail-gateway@ucsd.edu

Subject: PLEASE REMOVE FROM MAILING LIST

To: info-hams@ucsd.edu

Could you please remove the UNBHAM@JUPITER.SUN.CSD.UNB.CA account from your mailing list. Our account now forwards to almost 100 members and receiving the elements list is a nusicance to the others.

Thanks you...

Don Trynor VE1ARZ A4Q4@JUPITER.SUN.CSD.UNB.CA

- -

Date: Thu, 7 Oct 1993 16:35:25 GMT

From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net! vixen.cso.uiuc.edu!sdd.hp.com!hpscit.sc.hp.com!hplextra!hpcc05!hpldsla!

brunob@network.ucsd.edu

Subject: Tubes

To: info-hams@ucsd.edu

Most of the tubes are mfg. in Russia and China. Wath for fillemant oriantation in "big" tubes like 911A.

from the log of AA6AD

Date: 11 Oct 1993 15:10:19 GMT

From: newsserv.cs.sunysb.edu!rick@nyu.arpa Subject: Turning in RFI generating PC's to FCC

To: info-hams@ucsd.edu

Bob Keller (rjkeller@sytex.com) wrote:

: rick@cs.sunysb.edu (Rick Spanbauer) writes:

- : > Note that I am not quite enough a Libertarian to say we should
- : > not have regulations at all, but the current system is burdensome
- : > enough that IMO we need not cajole the FCC into taking even more

: > action than it has. I rather like the idea of being able to
: > buy low cost iron (PC + peripherals) - if the Feds get into the
: > act, we usually all end up paying a lot more for epsilon better
: > services/merchandise.

: I am not advocating running to the FCC over every little problem, : and I fully realize that properly compliant individual systems, : when combined, may cause interference that is not the fault of : the manufacturer. But the original poster described a situation : in which the manufacturer had apparently blatently ignored even : minimal precaustions, and you will recall that he _did_ try to : deal with the manufacturer directly _before_ going to the FCC.

Bob, lets say I walk into a reseller and purchase a properly certified DX-33 along with a DX-66 cpu chip. I ask the reseller to install the DX-66 chip and she does. I take the system home and find it radiates wideband interfence all over 20m cw band. In the case, I think you would agree that the original mfg is probably not to blame for the EMI problem. Just this sort of thing happens all the time at the reseller level. If the original poster was dealing with middle distribution, then of course they are not going to be able to talk nuts and bolts RF - they are reselling a system they probably purchased from a mfg in the Pacific Rim. Yes, the system should have been recertified with the DX-66 but I argue that crucifying the mfg is not exactly right in this case.

: I disagree that FCC compliance will result in more expensive : euipment. Even you admit that dealing with the problem is often : as simple as installing a bead and/or scrping a bit of paint and : re-tightening a screw. It would not add much at all to the cost : of producing equipment for the manufacturer to take care of that : at the outset ... in fact, it will probably save the manufacturer : money in that it will reduce the number of complaints to be : dealt with after the product is in consumer hands.

Oneies iterative solutions do not always scale to something reproducible on the production line. If you have to meet tighter radiated emissions standards, that takes better shielding which in turn costs money. In a couple of digital hardware projects I've worked on, we specifically went with multilayer boards to deal with possible emissions problems.

: Also, cost is not measured only in terms of the retail price to : the one who buys the piece of equipment. What about the potential : interference experienced by all of us? I don't believe that : I should be forced to suffer telephone interference (or even : difficulty pulling out a weak CW signal) merely so that my : neighbor can save a buck or two on a piece of computer equipment.

Yes agreed. I would add that society ought not to suffer monetarily to meet the needs of the weak signal amateur community, however. I say this speaking less as a ham but as a taxpayer who is tired of seeing a lot of money poured down the drain to serve special interests I have no part in.

: And it is not just computers and peripherals ... it is all sorts : of electronic equipment. Further, you must remember that the : vast majority of consumers have neither the expertise nor the : inclination to "go to Radio Shack" as you suggest and make even : minimal modifications to purchased equipment. And why shoud : they? That is the manufacturers job.

Provided the consumer does nothing to violate the original design of the equipment!

: I do not believe in throwing Government regulation and : intervention at every conceivable societal ill ... but I do : believe that the first line of attach on RFI in a society that : is inundated with electronic devices must be the manufacturers. : I believe this in general, and I particularly believe this as : a ham. (We hams, operating legal and fully compliant systems, : are frequently blamed for RFI that is actually caused by the : ineffective shielding of consumer electronic devices.)

We agree in principle, but differ in methodology. I would rather see a sliding fee schedule where a manufacturer could sell small quantities of equipment, avoid burdensome compliance testing at the cost of a relatively high (EM pollution?) fee per system. Higher volume products that are pretested and comply would pay no per system fee. As things stand, testing is a burdensome cost on small companies.

: I think the original poster did the right thing. He first : went directly to the manufacturer, who chose not to help. : Only then did he go to the FCC.

Perhaps, but I would have gone another round with then, ie telling them that I was going to notify the FCC.

: Robert J. Keller (KY3R) | rjkeller@sytex.com

Rick Spanbauer, WB2CFV State University of New York

End of Info-Hams Digest V93 #1208 ***********